

RSV - Multiple-Roller

Instruction manual for automatic textile Smoke Curtains.

Valid for following item numbers:

- RSV 52110
- RSV 52111
- RSV 52120
- RSV 52121
- RSV 52210
- RSV 52211
- RSV 52220
- RSV 52221



Safely Control Spread of Fire

Smoke PROtec® - Smoke curtains

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These operating instructions are only valid with the supplied supplementary sheet „Safety instructions and Warranty conditions“!

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General

2. General

2.1 Foreword to this manual

This manual has been created for the purposes of proper operation, installation and maintenance by trained, experienced specialist personnel (e. g. mechatronics engineer or electrician) and / or specialist personnel with knowledge involving the installation of electrical devices.

Read the operating manual carefully and follow the prescribed sequence. Retain the operating manual for later use / maintenance. Please precisely observe the pin assignment, the minimum and maximum performance data (see "Technical data") and the installation instructions. Incorrect usage or improper operation / assembly can cause the loss of system functions and result in damage to property and / or persons.

You will find the following symbols in this manual:



INFO

This information provides you with additional tips!



ATTENTION

This warning draws your attention to potential dangers for the product!



DANGER

This warning draws your attention to possible risks to your life or health!



ENVIRONMENTAL NOTE

This warning draws your attention to potential dangers for the environment!

- This is how operating procedures are identified.
- ↘ Consequences are represented this way.
- *Buttons* or *switches* to be activated are indicated in italics.
- "Displays" are placed in quotation marks.

2.2 Description of product

The smoke curtain system Smoke PROtec consists of a high-grade textile glass fabric, which is rolled up in a compact head box and normally not visible. The smoke curtains work basically according to the "fail-safe" principle, i.e. in case of failure of all energy sources, in case of fault or disconnection, the smoke curtain descends in a controlled manner within maximum 60 seconds into the fire alarm position.

Thus the system fulfils highest safety requirements. The weights brought in the bottom bar provide the necessary energy for unwinding by gravitational force. The winding up takes place via a 24 V DC tubular motor. An external electronic system ensures a controlled winding up and down till the relevant end positions. This technology conforms to the highest security level according to EN 12101-1.

The smoke curtain system Smoke PROtec is according EN 12101-1 graded into the classification ASB 3¹, D120.

Clearances are reduced to a minimum by the special construction of the system even in use of multiple rolling. Special solutions are possible at any time e.g. diagonally across (90°). By the optimal use of side guides the clearances can be avoided at the edges. For the minimization of gaps the system can be delivered with side guides. They prevent a deflection of the dropped curtain when there is a force just from one side (e. g. high pressure from the side of the fire).

The automatic smoke curtain systems Smoke PROtec comply with the newest state-of-the art technology and fulfill the requirements according to EN 12101-1.

The production is externally monitored by a DIBt² notified body!

1.ASB 3 denotes smoke curtains which move "fail-safe" in a controlled manner within 60 seconds in their fire alarm position when all primary and auxiliary energy sources are disconnected through wiring breaks or other system errors or any combination thereof.

Automatic smoke curtains (Type ASB3 and ASB4) which are installed in critical areas of buildings e.g. emergency exits, entrances and exits of escalators, stairwells, etc., must have a speed range of 0.06 to 0.15 m/s. Smoke curtains with the classification ASB3 are also suitable for cases of operation which must fulfill a life-saving function.

2.Note: DIBt is the only German approval body for construction products and types of construction.

Safety regulations

2.2.1 Curtain sizes

For curtain larger than 5960 mm, multiple roller were used, which are placed in a continuous housing optional side by side or over/under. The rollers have an overlap of 300 mm.

The maximum width of the smoke curtain is 30 000 mm (Multiple roller overlapping). The maximum drop length is 6000 mm.

The production is externally monitored by a DIBt³ notified body!



Take care of the user and installation manual of the according control electronics.

2.3 Approved Use

Smoke curtains are for closing holes in divider walls.

2.4 Technical data

Table 1: technical data of smoke curtain

Fabric	One-sided PU-coated glass fabric, 570 g/m ² , colour grey, Non –flammable according to DIN 4102-1, A2
Unwind	By force of gravity (gravity fail safe)
Windup	Via planetary geared-motor, 24 V DC, engine speed sensor, maximum torque 4 Nm, integrated into the winding shaft, including 2 m connection cable.
Installation	Ceiling, wall, vertical unwinding
System size ¹	System width ≤ 5960 mm (Single roller) System width ≤ 30000 mm (Multiple roller) Unwinding length ≤ 6000 mm
Head box	Sheet steel 1.0 mm powder-coated in RAL 7035 ² Single roller (to approx. 6 m width)

Table 1: technical data of smoke curtain

End section	Sheet steel 1.0 mm powder-coated in RAL 7035 ² with integrated unwind weights in fabric bag.
Classification/Standardization	EN 12101-1, ASB 3, D120 (fail-safe)
Fire resistance time	2 hours at 600° C (in accordance with DIN EN12101-1)
Side guides	Steel 1.5 mm powder-coated in RAL 7035 ² , dimensions (W × D) 50 × 100 mm.

1. Special size upon request.
2. Special color upon request.

3. Safety regulations



Danger

For placing this product on the market outside of Germany the installation and use has to follow all relevant and valid directives of the respective country!



DANGER

Power supplies and electrical control devices of fire protection systems must be easily accessible.



DANGER

On both sides of the smoke curtains warning signs have to be installed that the drop area has to be kept free of any objects which can obstruct the drop down.



DANGER

Further requirements according to other rules, particularly health and safety, are to remain unaffected.

3.Note: DIBt is the only German approval body for construction products and types of construction.

Safety regulations

3.1 Variants

3.1.1 Multiple roller side by side

Figure 1:

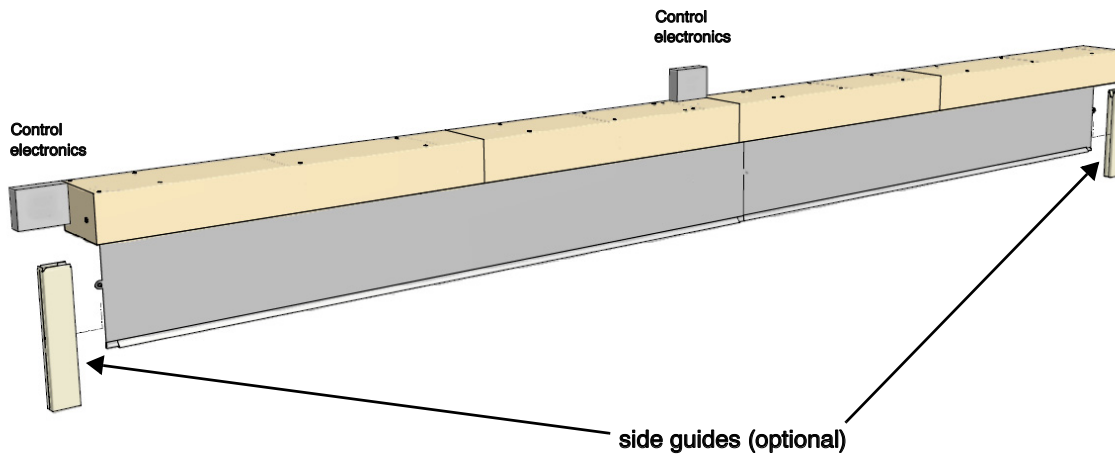
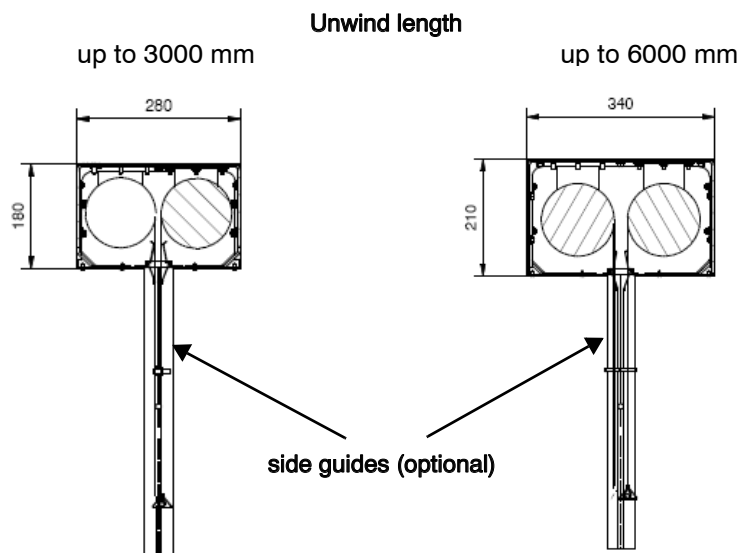


Figure 2:



Safety regulations

3.1.2 Multiple roller over/under

Figure 3:

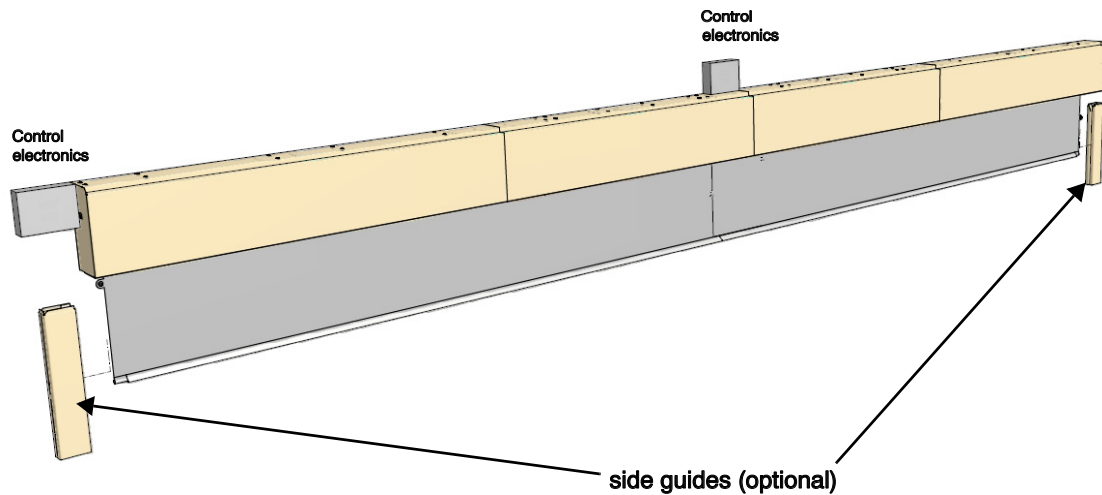
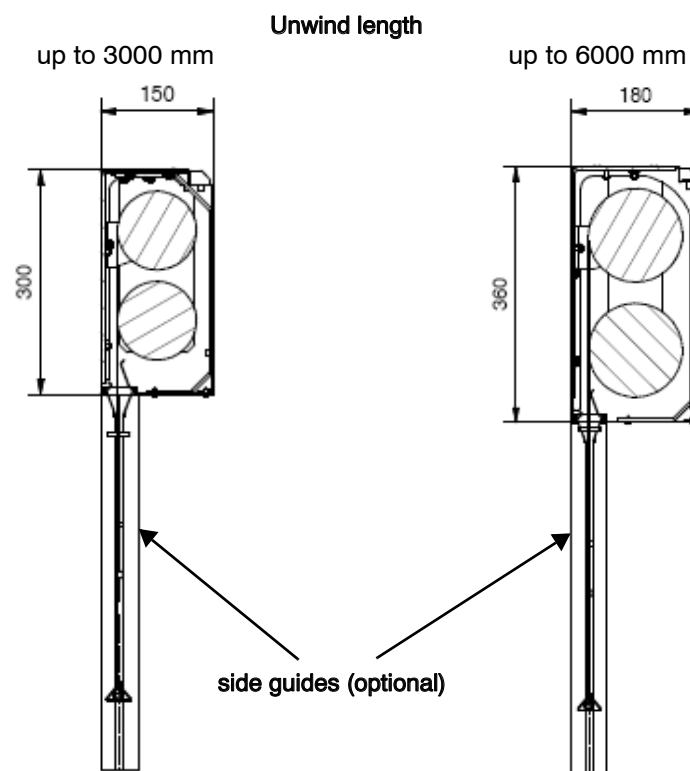


Figure 4:



Images

4. Images

Figure 5: housing box on the left multiple roller side by side

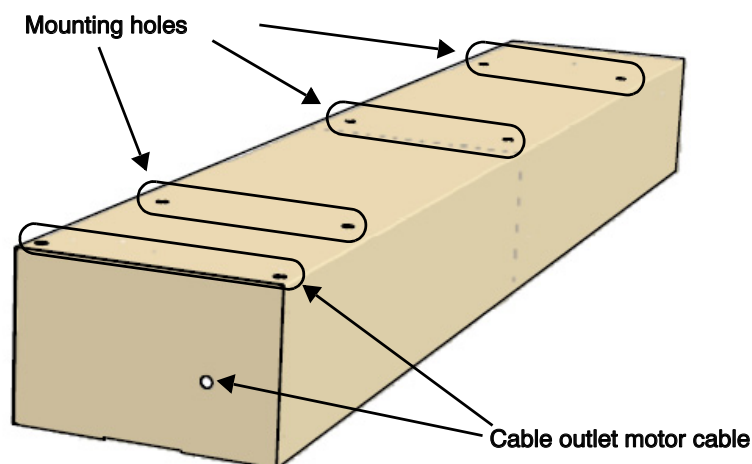
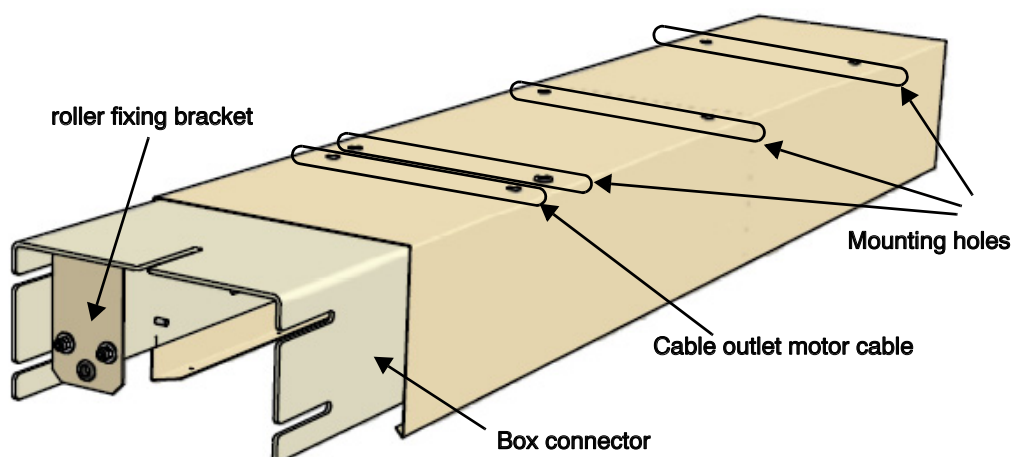


Figure 6: housing box on the central multiple roller side by side



Images

Figure 7: housing box on the right multiple roller side by side

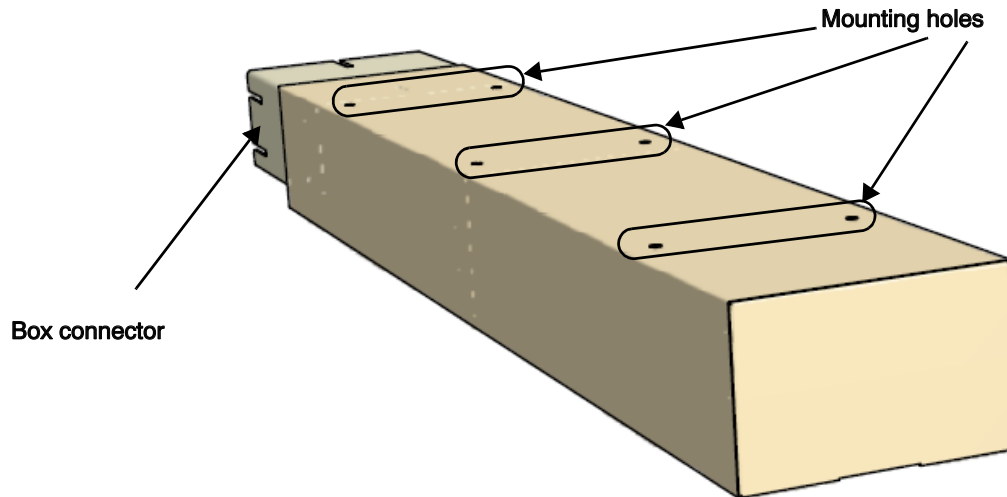
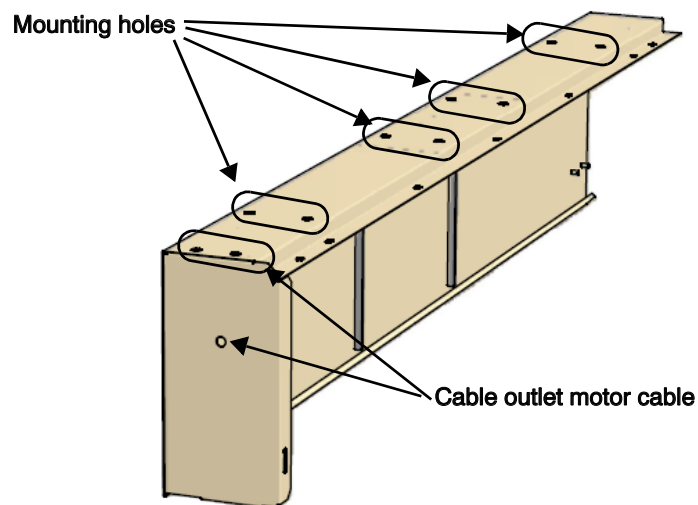


Figure 8: housing box on the left multiple roller over/under



Images

Figure 9: housing box central multiple roller over/under

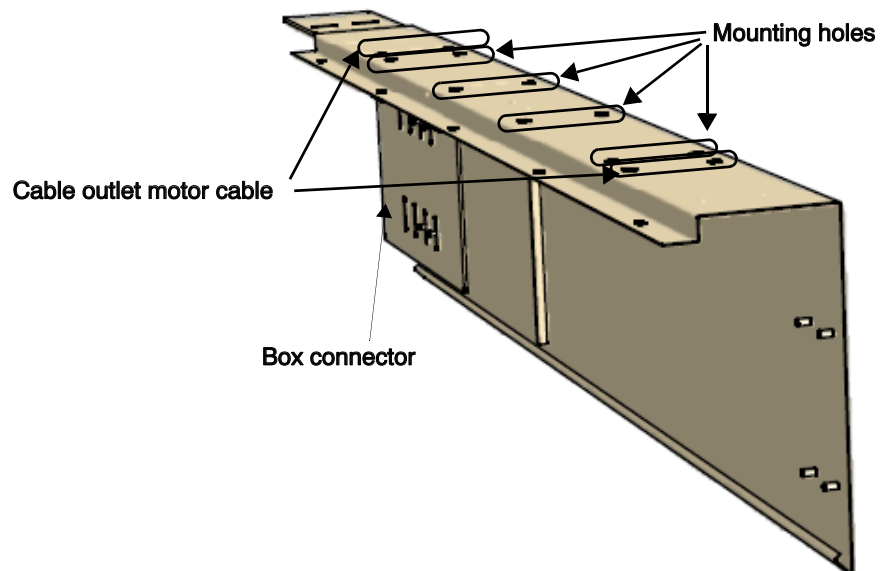
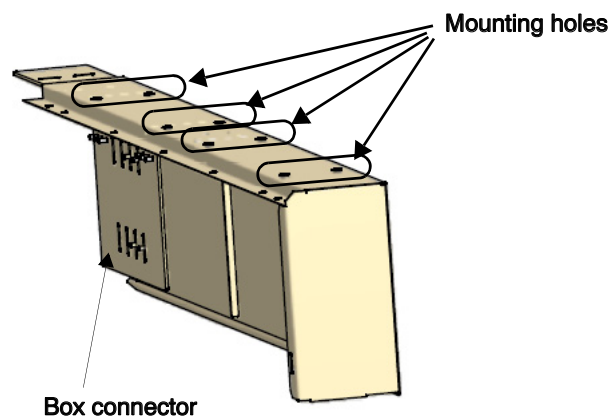


Figure 10: housing box on the multiple roller over/under



Images

Figure 11: roller assemblies

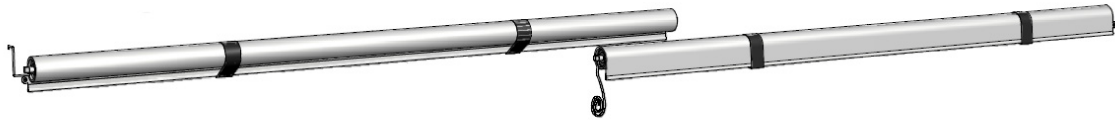


Figure 12: roller fixing bracket multiple roller over/under

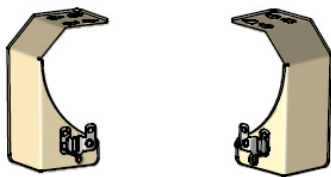


Figure 14: support bracket multiple roller over/under

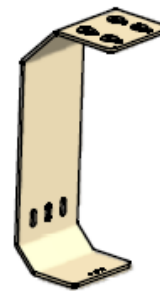


Figure 13: support bracket multiple roller side by side

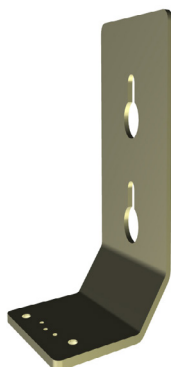
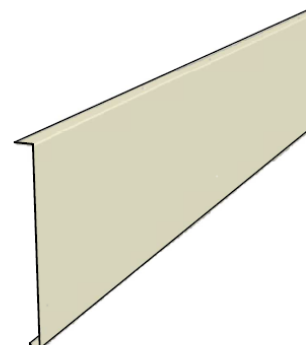


Figure 15: frontline plate multiple roller over/under



Images

Figure 16: cover plate on the left, middle, right-version without side guides or on the middle with side guides

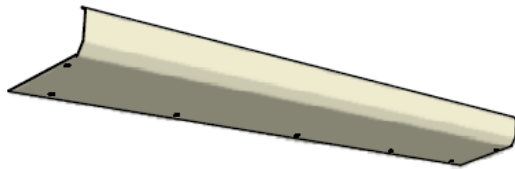


Figure 17: cover plate on the left-version with side guides

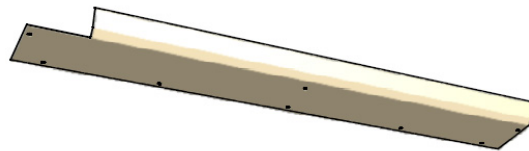


Figure 18: cover plate on the right-version with side guides

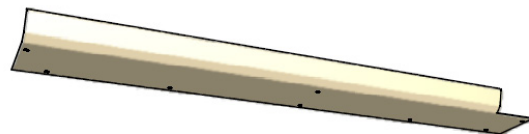
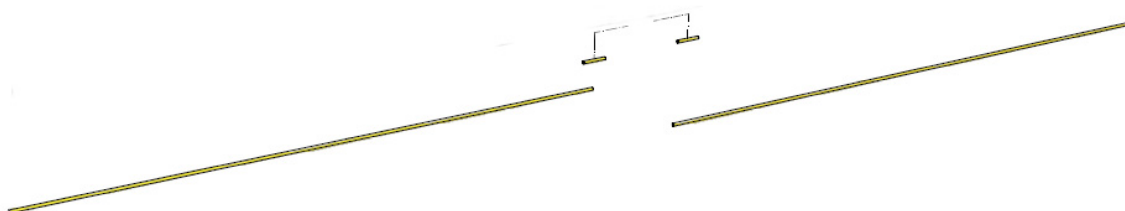


Figure 19: Ballast round bar



Images

Figure 20: bottom bar

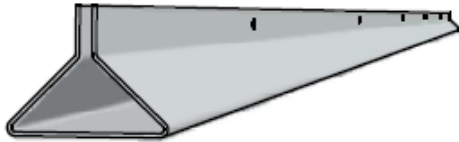


Figure 23: side guides (2 pieces) (optional)

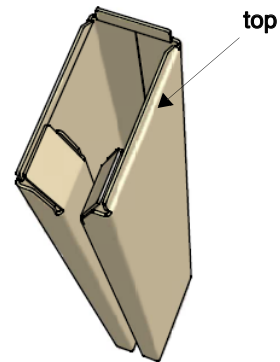


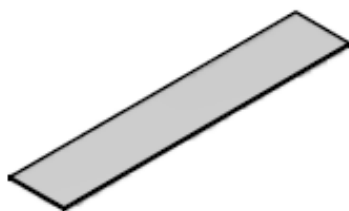
Figure 21: bottom bar two-parts (optional)



Figure 24: installation retainer



Figure 22: connecting plate for bottom bar



Clearances

5. Clearances

Following clearances (allowed gaps) in accordance with the DIN EN 12101-1.

Figure 25: Multiple roller side by side (side-view)

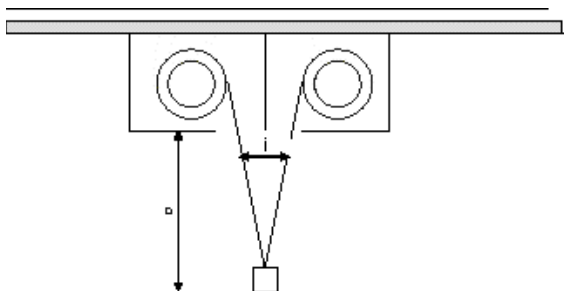
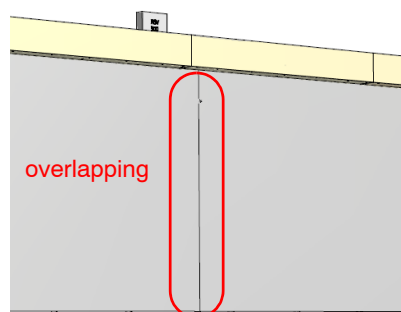
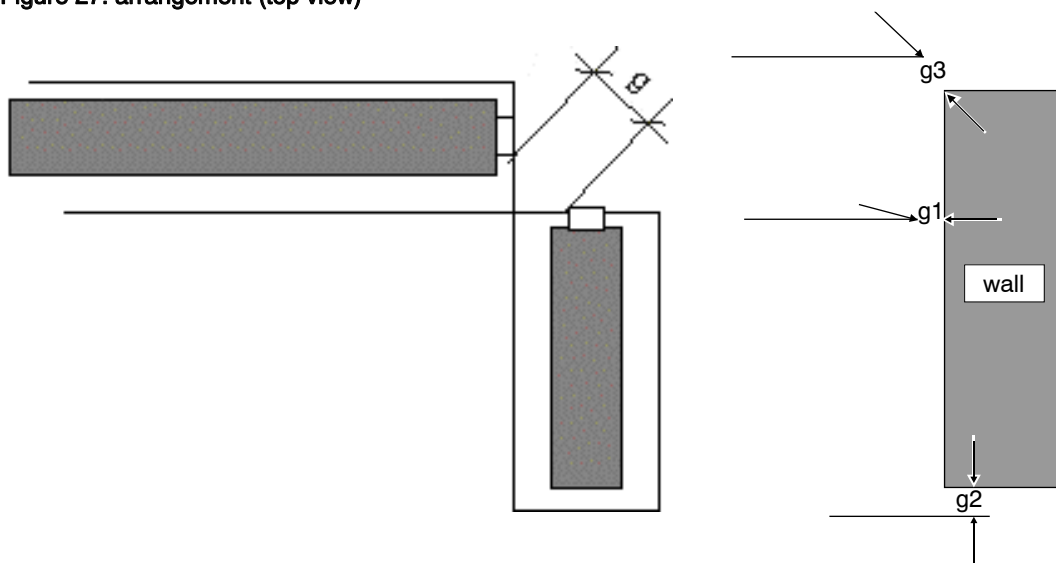


Figure 26: Multiple roller side by side (top-view)



The clearance "g" is nonexistent, because the curtains are overlapping!

Figure 27: arrangement (top view)



Clearances

Figure 28: box system clearance

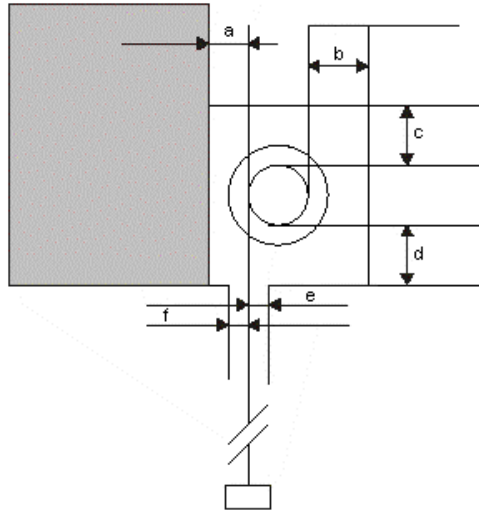


Table 2: clearances (allowed gaps)

Variant	Head boxes						Edges			Con- nection
	a	b	c	d	e	f	g1	g2	g3	
280 x 180 - N	169	39	49	59	-	9	147	30	150	4
280 x 180 - N - SFS	169	39	49	59	-	9	0	0	0	4
340 x 210 - N	199	69	73	65	-	9	161	30	163	4
340 x 210 - N - SFS	199	69	73	65	-	9	0	0	0	4
150 x 300 - U	39	39	45	183	-	9	40	30	50	0
150 x 300 - U - SFS	39	39	45	183	-	9	0	0	0	0
180 x 360 - U	54	54	59	223	-	9	25	30	39	0
180 x 360 - U - SFS	54	54	59	223	-	9	25	30	39	0

The specifications of the clearances in mm.



INFORMATION

For the calculation of open surfaces please refer to the smallest measurement in each case!

Installation

6. Installation



DANGER

Mounting may be carried out only by professional personnel (qualified electrician)! All relevant national safety regulations and rules apply to mounting, installation and commissioning.

If the installation is not carried out correctly there is a danger of electrocution. It is essential that you adhere to the applicable safety regulations! Pay attention to the valid installation regulations. Incorrect installation can lead to serious injuries.



ATTENTION

The mounting aids are not included in the standard scope of supply. The distance of the fixing points parallel to the head box amounts to 1200 mm.

The fixing material is allowed to extend only maximum 15 mm into the head box. Otherwise the material of the smoke curtain comes into contact during wind-up or unwinding process and damaged for this reason.

According to sub-surface we recommend e.g. concrete F30, impact anchor e.g. M10 x 25.



ATTENTION

The installation of the smoke curtains requires technical knowledge and adequate care in dealing with movable as well as electronic components by assembly personnel. Depending on installation situation and design the installation steps can differ from one another. In case of doubt you should fall back on the experience of a mechanic of the Simon PROtec Systems GmbH or a qualified dealer authorized and trained by the manufacturer.

For the installation of automatic smoke curtains you must observe the European Draft Standard CEN/TR 12101-4. In particular the permissible clearances must be taken into account. (see 5. "Clearances" on Page 14) Only those fasteners are permitted which are designed for an at least 60 minute thermal stress of 600° C. The surface to which it is to be attached must accordingly be able to take the load. According to DIN EN 12101-1 is not necessary to install fire rated cables for ASB 3 systems.

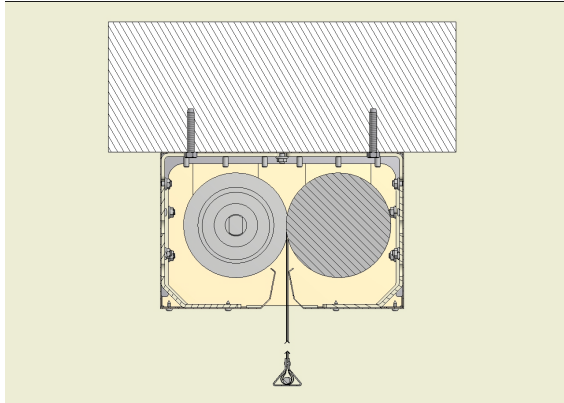
The fixing of the head box can take place in different ways (see 6.1 "Installation variants" on Page 17).

Installation

6.1 Installation variants

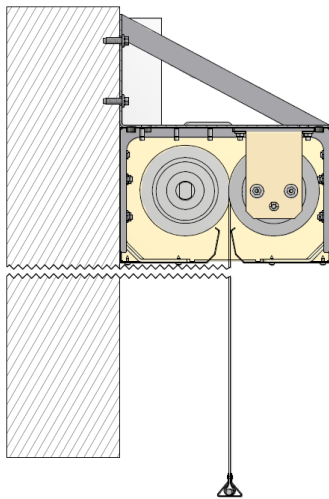
6.1.1 Multiple roller side by side

Figure 29: direct installation to on the ceiling



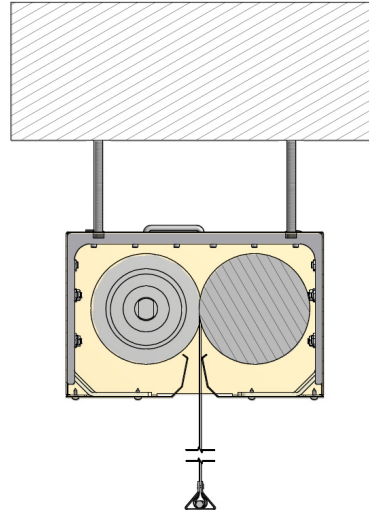
- On the upper side of the housing box, holes are provided for direct installation to on a ceiling.

Figure 30: *installation direct on the wall*



- By this mounting variant an angle has to be mounted additionally. The angle is not included in the standard delivery contents!

Figure 31: installation above suspension



- Installation above suspension. The threaded rods (spindle) and the fixing plate are not in the standard delivery contents.

Installation

6.1.2 Multiple roller over/under

Figure 32: *installation direct on the ceiling*

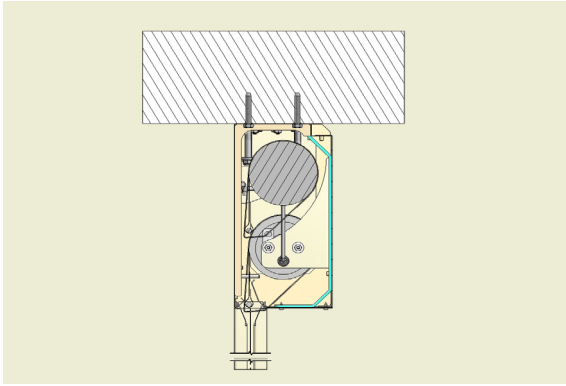


Figure 33: *installation direct on the wall*

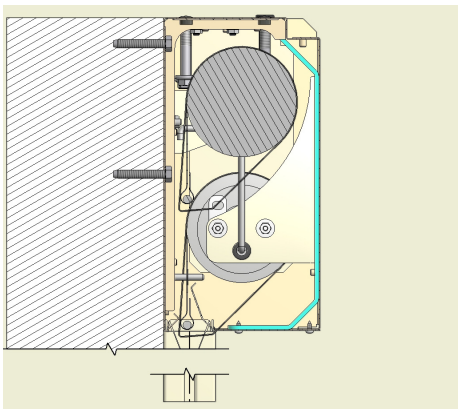
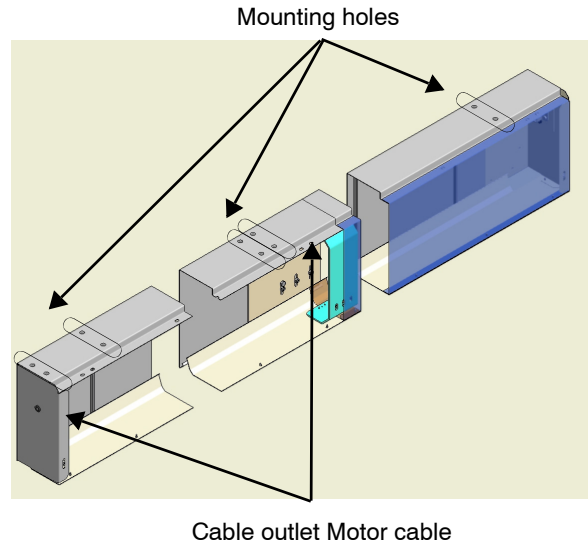


Figure 34:



ATTENTION

Please take care that fixings, angle, suspensions etc. are fire rated in the same as the curtain system itself.

- Therefore appropriate holes have to be drilled in the housing box. Drill the holes in the same distance as the factory made holes.
- The holes on the upper side, which are not used, have got to be closed suitably.

Installation

6.2 Mounting of the housing box

The housing box is mounted without roller assembly, support bracket, frontline plates, cover plates and corresponding screws are enclosed to the smoke curtain.

- Please proof the marking of the components and the labelling of the connecting parts.



ATTENTION

The making of the fixing holes in the supporting structure must be carried out with greatest caution as otherwise a proper functioning of the curtain is not ensured.

The complete box system must be mounted horizontally and in an alignment. Crookedly mounted boxes or box parts lead to faults and damages to the curtain material!

- Mark the drill holes.
- Make the drilling holes.



ATTENTION

Use only fixing material or fixing aids which comply with the regulations. Do not use any impact anchor made of unsuitable materials (e.g. synthetic).

- Attach the fixing material.



ATTENTION

Please remember that the head box is not symmetrical in the cross-section. That means that the curtain material unwinds one side of the head box. The other side is covered with the cover plate from the bottom up. Likewise the outlet port of the connecting cable from the head box is determined from this alignment of the head box. The head box is to be aligned correctly in accordance with these conditions.

- Install the head box with the help of the fixtures provided.



ATTENTION

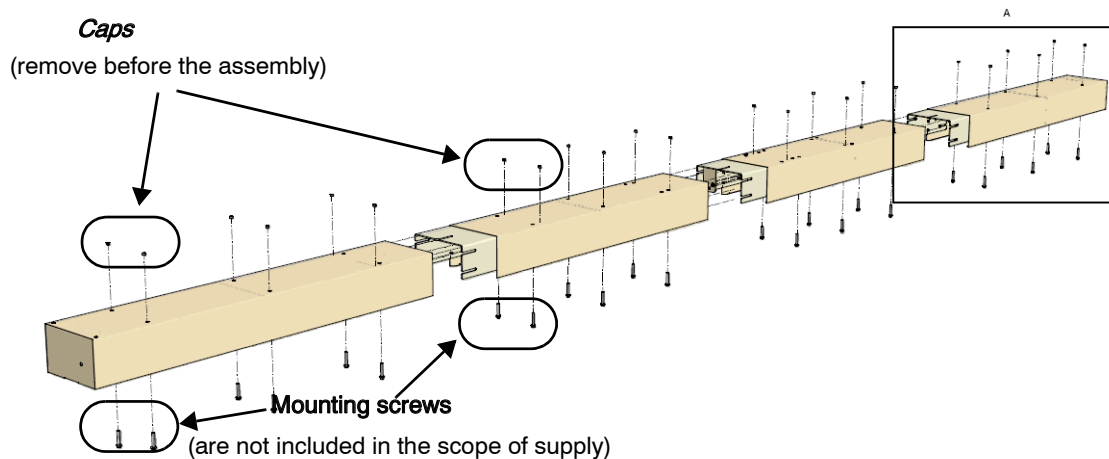
The self-locking nuts must be tightened with a torque of 4 Nm. In case of too high torques the welded studs can come off.¹

1. Should a welded stud come off at the time of Installation, this can be replaced by a pin contained in the repair kit. (The repair kit is enclosed with the box system)
- Please follow for multiple roller side by side the instructions among: 6.2.1 "Mounting of the housing box multiple roller side by side" on Page 20
 - Please follow for multiple roller over/under the instructions among: 6.2.2 "Mounting of the housing box multiple roller over/under" on Page 22

Installation

6.2.1 Mounting of the housing box multiple roller side by side

Figure 35:



All individual parts and joints are marked. The individual parts must then be joined together as marked.

It has got to be started at the side, where the box connector is located (housing box on the right)

- Install the right head box on the ceiling.
- Push together the "Housing box central" and the "Housing box on the right", according to the marking, fix it on the ceiling and bolt them together.
- Repeat this step until all „housing boxes central“ were installed.
- Push together the "housing box on the left" and the "housing box central" according to the marking, fix it on the ceiling and bolt them together.

Installation

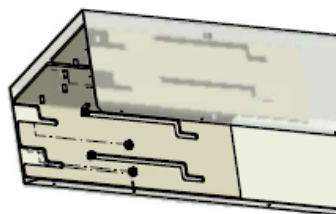
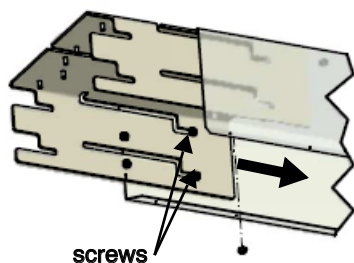


INFO

The head box connector is moveable when mounted. So it is possible to insert the "left head box part" from below. That is necessary if the curtain ends directly to the wall and it is not possible to put the last head box part from the side onto the others.

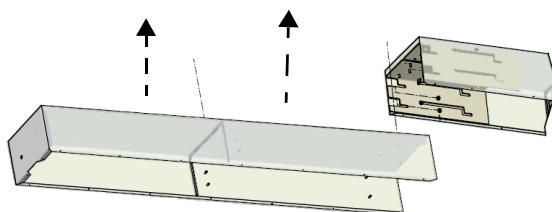
- Unscrew the head box connector and move it inwards.

Abbildung 36:



- Insert "left head box part" from below.
- Move head box connector back to original position and fix it with the screws.

Abbildung 37:



- Straighten the housing boxes horizontally and aligning and fix them.



ATTENTION

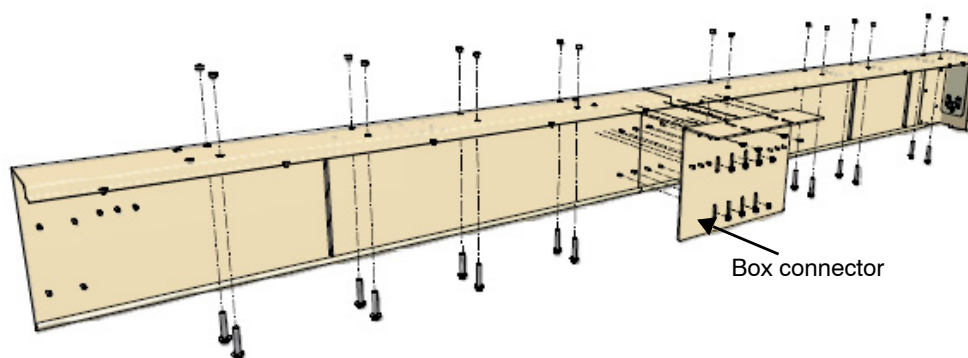
Complete the installation of the box system with a check on horizontal and aligned complete installation.

- Mount the roller assembly continuing with "Mounting of the roller assembly multiple roller side by side" on page 23.

Installation

6.2.2 Mounting of the housing box multiple roller over/under

Figure 38:



All components and connecting parts are marked. The components have got to be joined together, according to the marking.

- Mount the right housing box on the ceiling.
- Set the "housing box central" according to the marking on the "housing box on the right" and fix it on the ceiling. Insert the box connector, according to the marking and bolt them together.
- Repeat this step, until all "housing boxes central" were installed.
- Set the "housing box on the left", according to the marking on the "housing box central", and fix it on the ceiling. Insert the box connector according to the marking and bolt them together.
- Align the head boxes horizontally and flush and attach these.



ATTENTION

Complete the installation of the box system with a check on horizontal and aligned complete installation.

6.3 Installing roller assembly



ATTENTION

The smoke curtain may be operated only connected with the accordant electronic control system even during the installation, since otherwise the drive unit may be destroyed.



DANGER

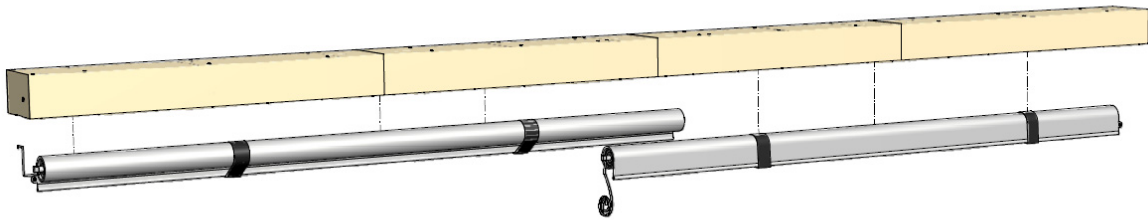
The unwind protection (adhesive tape) of the roller assembly must be in place. Only after connection of the electronic control system to the power supply may the unwind protection be removed. In case of non-observance, the curtain unwinds in an uncontrolled manner and the electronic components are destroyed.

- For multiple roller over/under continuing with "Mounting of the roller assembly multiple roller over/under" on page 24.

Installation

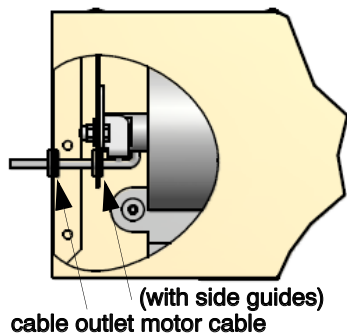
6.3.1 Mounting of the roller assembly multiple roller side by side

Figure 39:



- Insert the posterior roller assembly into the housing box with the help of a second person (or suitable lifting means).
- Remove cable ties of the access line.

Figure 40: cable lead-trough



- Lead through the access line across the cable lead-through of the roller fixing bracket.
- Lead outwards the access line across the cable lead-through of the housing box.
- If further posterior roller assemblies are available, repeat the steps for the mounting of the posterior roller assemblies until all are mounted.
- Repeat the steps for the mounting of the anterior roller assemblies.



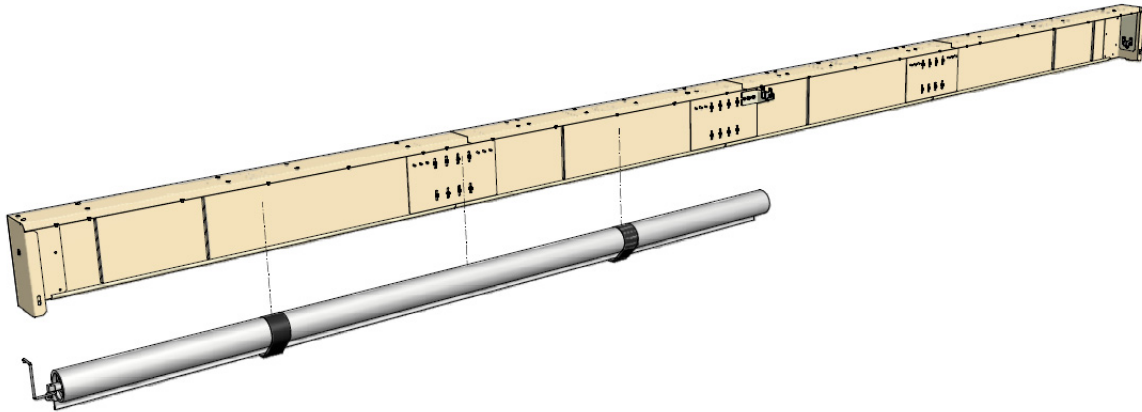
ATTENTION

After that the cable must not have any loops in the head box. So you can prevent clashes with the curtain which can damage the cable connection and the curtain itself.

Installation

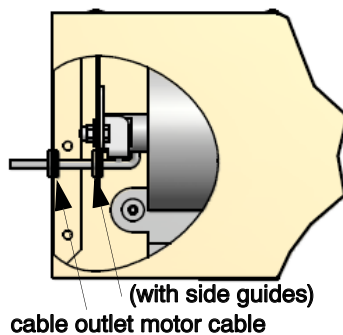
6.3.2 Mounting of the roller assembly multiple roller over/under

Figure 41: mounting of the upper roller assembly



- Insert the upper roller assembly into the housing box with the help of a second person (or suitable lifting means).
- Remove cable ties of the access line.

Figure 42: cable lead-trough



ATTENTION

After that the cable must not have any loops in the head box. So you can prevent clashes with the curtain which can damage the cable connection and the curtain itself.

- Lead through the access line across the cable lead-through of the roller fixing bracket.
- Lead outwards the access line across the cable lead-through of the housing box.
- Mount complete roller fixing brackets for the lower roller assemblies, according to the marking,

Installation

Abbildung 43:

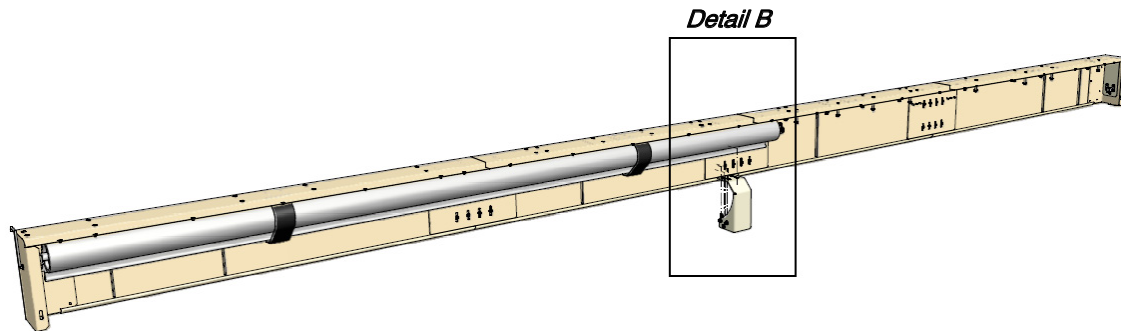


Figure 44: Detail B

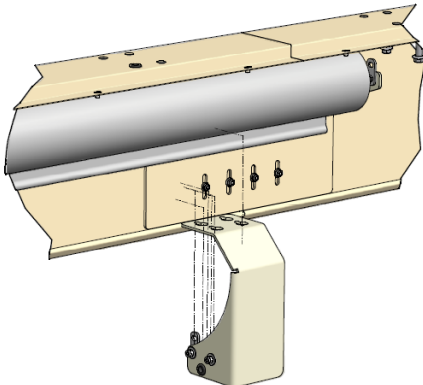
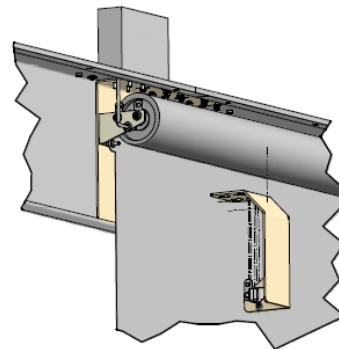


Figure 45: roller fixing bracket on the right

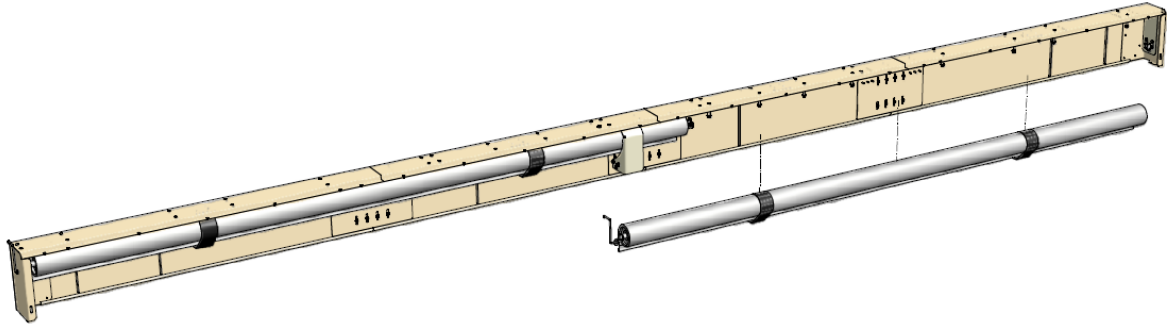


- If more than 3 rollers then the roller fixing bracket has to be fixed additionally (see Figure 45: "roller fixing bracket on the right" on Page 25).

- Insert the lower roller assembly into the housing box with the help of a second person (or suitable lifting means).
- Remove cable ties of the access line.
- Lead through the access line across the cable lead-through of the roller fixing bracket.
- Lead outwards the access line across the cable lead-through of the housing box.

Installation

Figure 46: *mounting of the lower roller assembly*



ATTENTION

After that the cable must not have any loops in the head box. That can lead to collision with the curtain, and as a result damage of the connecting cable as well as the curtain.

Installation

6.4 Complete the installation



INFORMATION

If the system Smoke PROtec is used in the industrial area or in areas with greater interference sources (e. g. large crane installations) there can be cable-related electrical interferences in spite of all in-built protective devices. These interferences of the distribution network via the mains cable cause possibly faulty activations of the system.

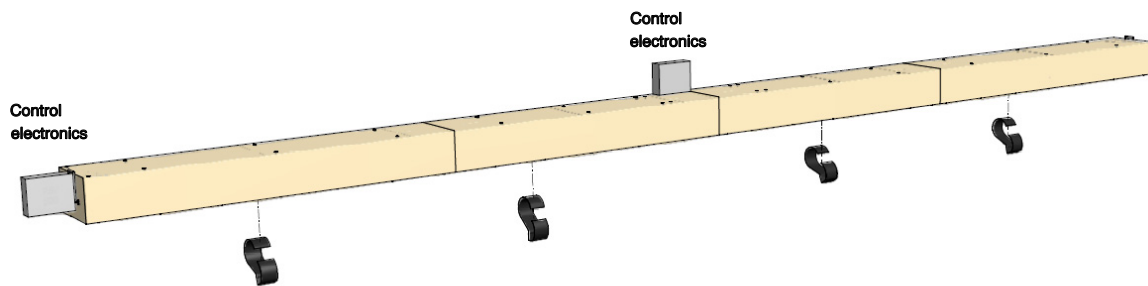


DANGER

Before you remove the installation retainer of the roller assembly the electronic control system must be connected and provided with the power supply or the curtain must be secured against inadvertent unwinding.

- Remove the installation retainer of the roller assembly and allow the curtain to unwind slightly.

Figure 47: removing of unwinding protection



- For multiple roller side by side continuing with "Mounting of the support bracket multiple roller side by side" on page 28.
- For multiple roller over/under continuing with "Mounting of the support bracket and frontline plate multiple roller over/under" on page 29.

Installation

6.4.1 Mounting of the support bracket multiple roller side by side

- Now mount the support bracket according to the marking. And tighten the screw with a torque of 4 Nm.

Figure 48: Mounting of the support bracket

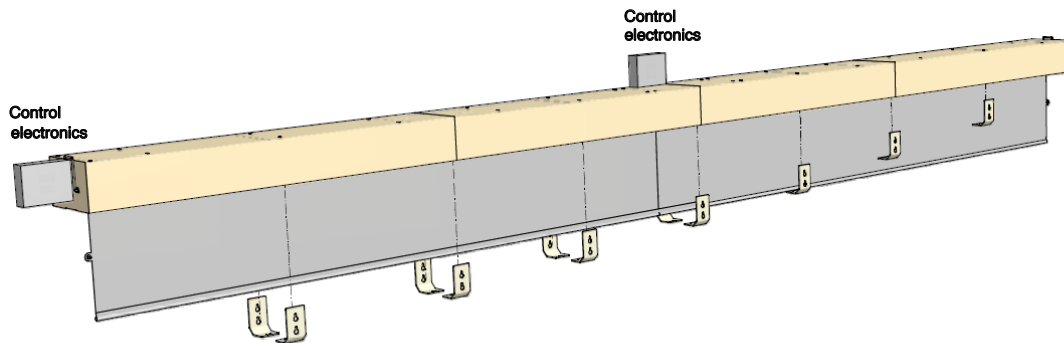


Figure 49: mounting of the support bracket on the Bbox connector

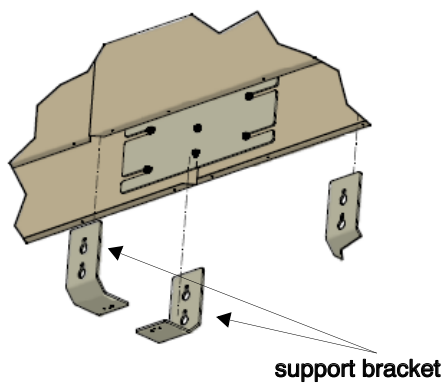
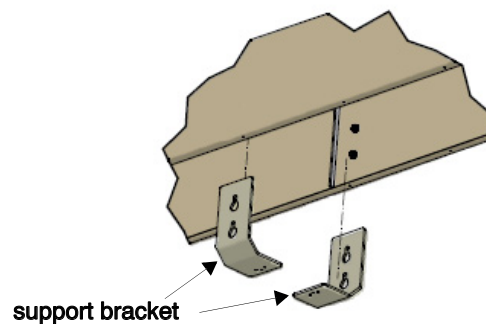


Figure 50: mounting of the support bracket on the housing box



- Mounting of the cover plate continuing with "Mounting of the cover plate" on page 31.

Installation

6.4.2 Mounting of the support bracket and frontline plate multiple roller over/under

Figure 51: mounting of the support bracket

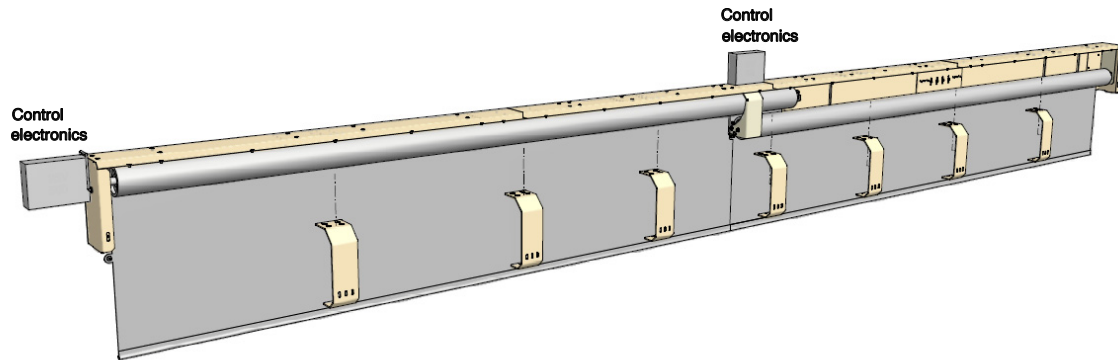


Figure 52: mounting of the support bracket on the box connector

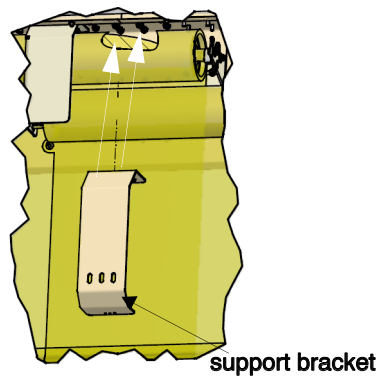
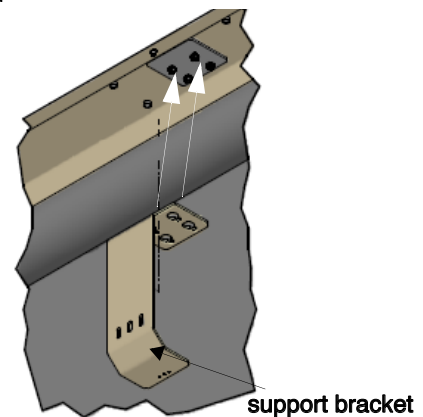
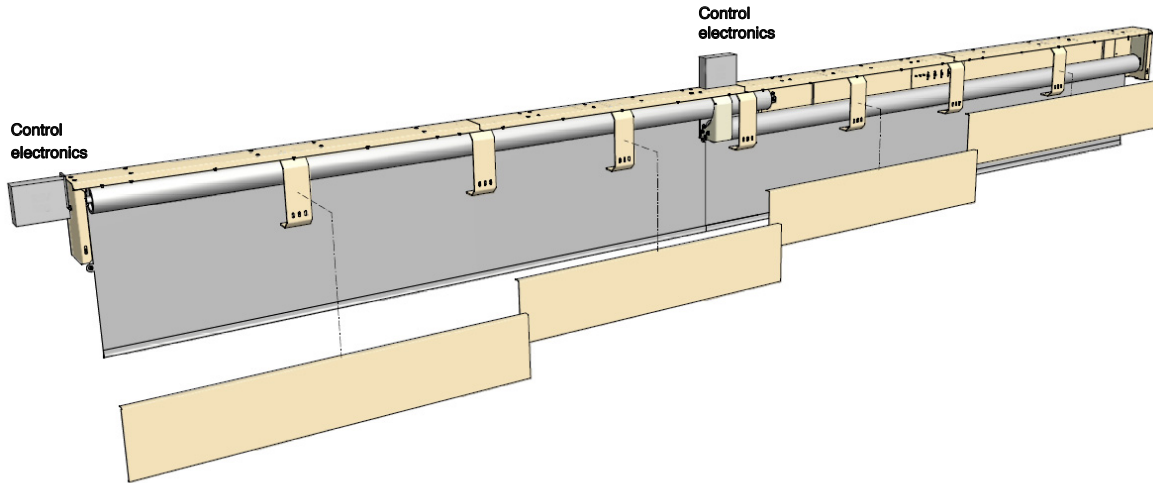


Figure 53: mounting of the support bracket on the housing box



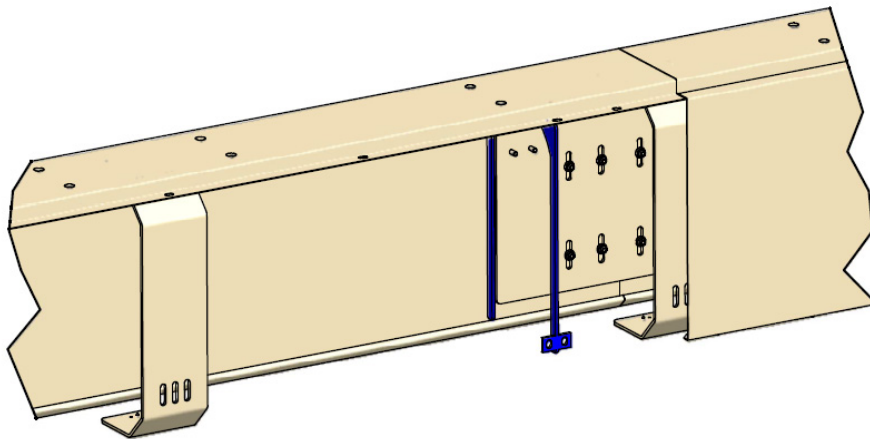
Installation

Figure 54: mounting of the frontline plates



- Mount the frontline plates according to the marking.
- Fit the self-locking nuts onto the stud bolt and fix the screw with a torque of 4 Nm.
- For Headbox systems 180 mm x 360 mm there are additionally support ribs to be fixed in the same way as the support brackets (see Figure 55: "support rib" on Page 30).

Figure 55: support rib



- Mounting of the cover plate continuing with "Mounting of the cover plate" on page 31.

Installation

6.5 Mounting of the cover plate

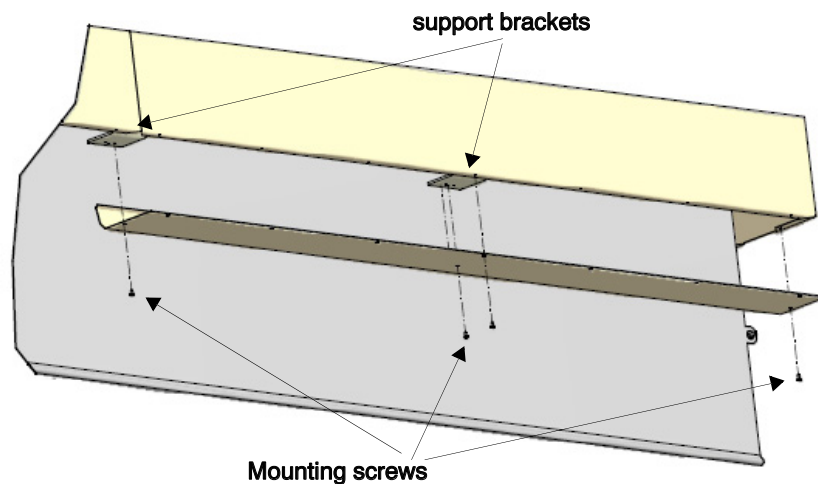
- Fix the cover plates according to the marking. The curtain must drop down for approx 500 mm.
- At first mount the exterior and the central screw (do not tie up yet).



INFORMATION

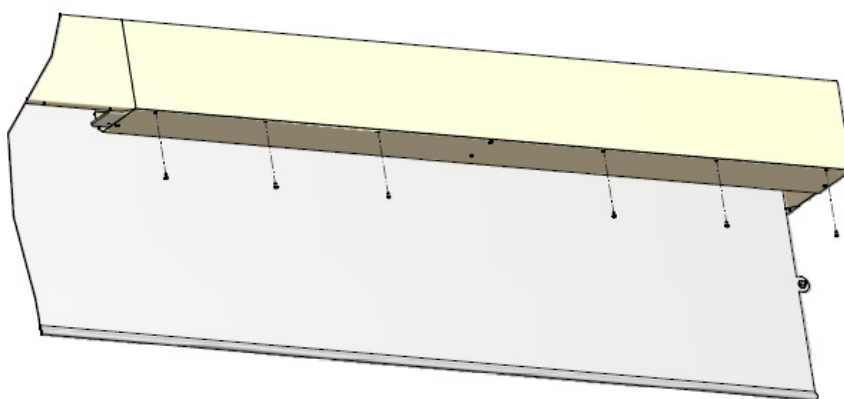
Fix the screws where the support bracket are located!

Figure 56: fix cover plate



- Fix the remaining screws. Align the cover sheet and tighten the screws.

Figure 57: fix cover plate

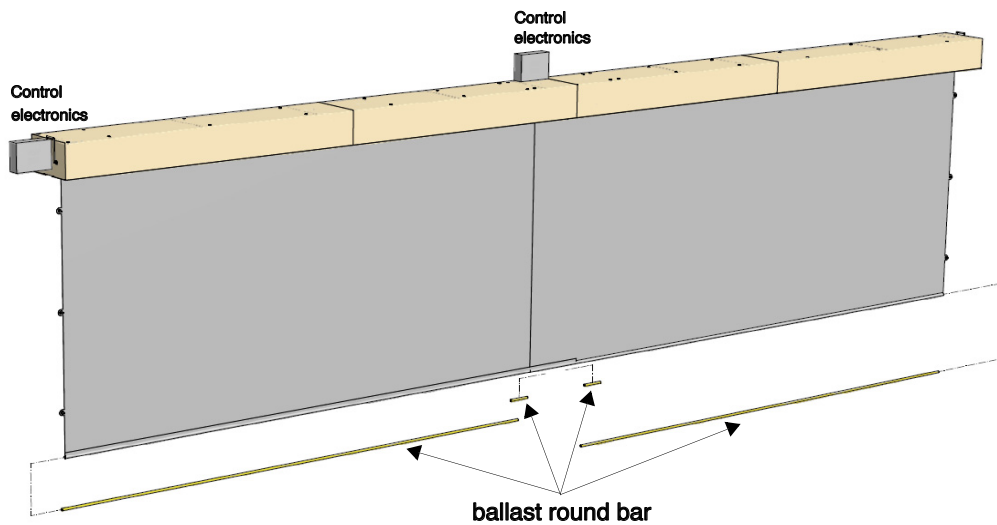


Installation

6.6 Mounting of the Ballast round bar

- Drop down the curtain for approx 500 mm. Maybe it is necessary to help by hand.
- Mount the short ballast round bar, where the curtains overlap.
- Let the ballast round bar close shortly with the curtain.
- Mount the long ballast round bar by the right and the left and let them close outside shortly with the curtain material.
- The ballast round bar must be flush at both ends of the curtain to allow installation of bottom bar.

Figure 58: mounting of the ballast round bar



Installation

6.7 Mounting of the bottom bar

Figure 59: Marking of the bottom bar

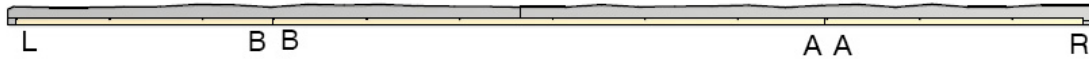


Figure 60: Mounting of the bottom bar

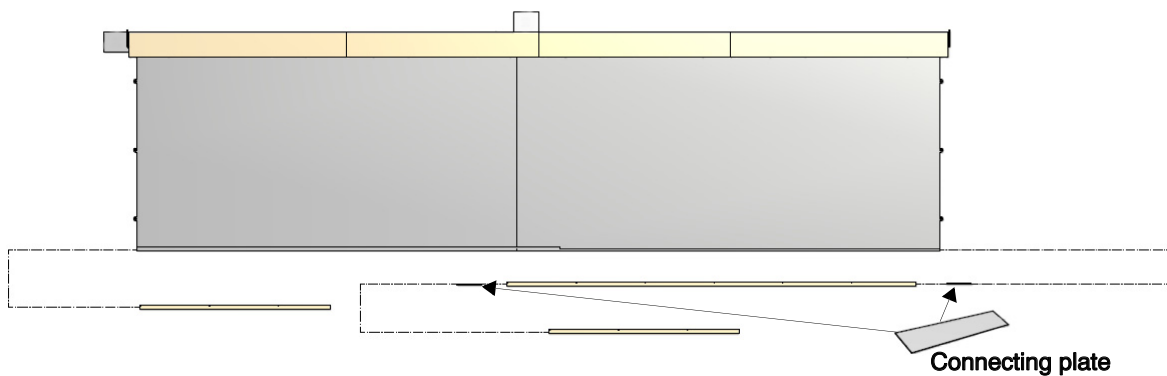
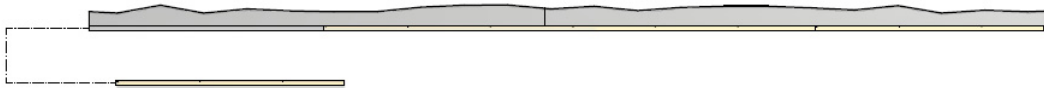


Figure 61:



- Mount the bottom bar in the given order. Use the connecting plates.
- Put off the first bottom bar.
- Push the connecting plate between curtain and the bottom bar and let the connecting plate overlap halfway-through.
- Put off now one by one the further bottom bars. Thereby the connecting plate must not move.

Installation

- Align the bottom bar.

Figure 62: Smoke curtain without side guides

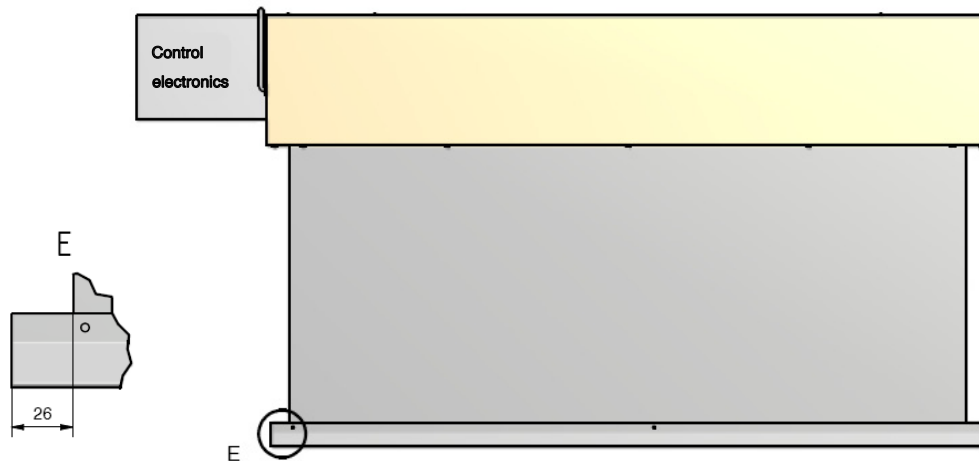
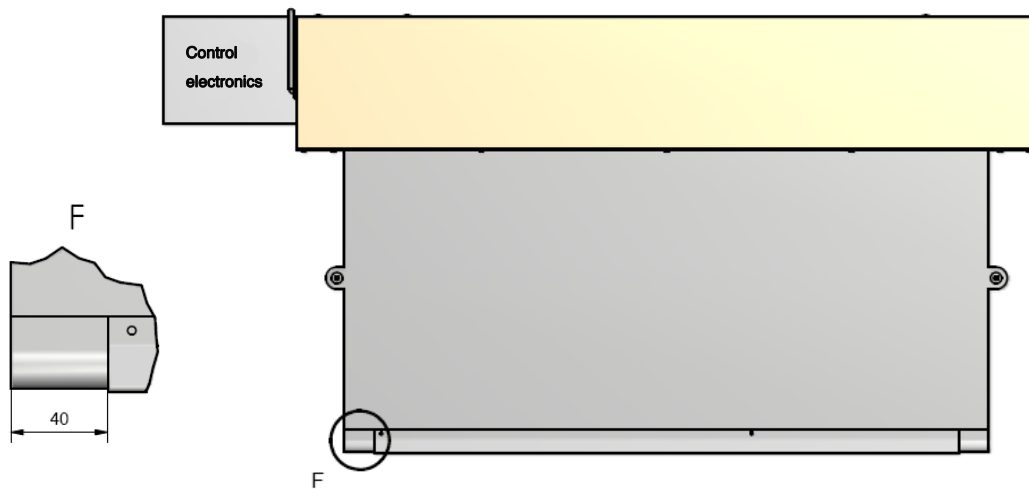


Figure 63: Smoke curtain with side guides



- For curtain systems without side guides continuing with "installing bottom bar" on page 38.

Installation

6.8 Install side guides (optional)

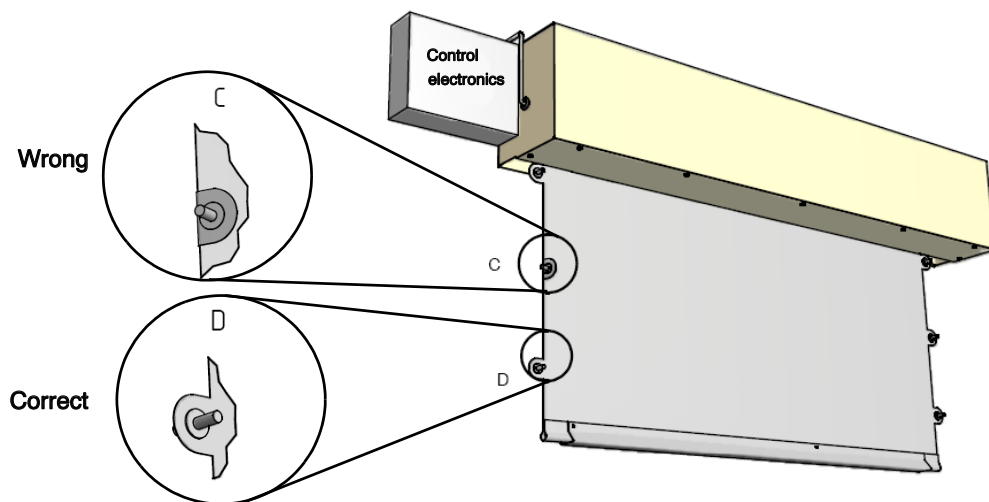
- Allow the curtain to unwind completely and align the plates!



INFORMATION

If your curtain system does not have any side guides, you can skip this chapter.

Figure 64: align plates of the restraint system



The fixing of the side guides can be done in various ways.

- For direct fixing in a reveal the existing slots on the back side of the side guides can be used (see Figure 65: "direct fixing in the reveal" on Page 36).
- Likewise the installation can take place indirectly via an angle on a wall. For this optionally angle plates are screwed or welded to the side guides. (see Figure 66: "installation via an angle" on Page 36).



CAUTION

Own mounting angles must not be used because they were not part of the test for the certification. Use only angles released by the manufacturer (e. g. part no. RSV 52252).

Installation

Figure 65: direct fixing in the reveal

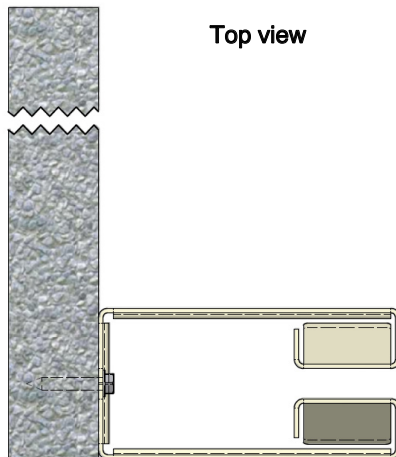
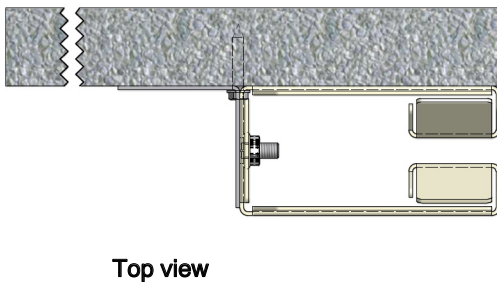


Figure 66: installation via an angle



- Allow the curtain to roll up fully and install the side guides by inserting the side guides into the head box and then aligning vertically.

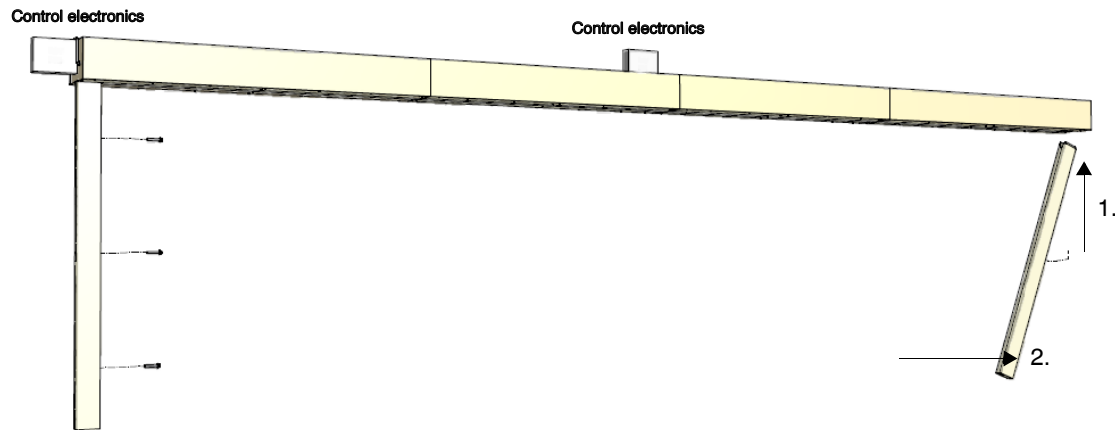


ATTENTION

Consider the installation position! The running-in funnel (see Figure 23: "side guides (2 pieces) (optional)" on Page 13) must show upwards to the housing box.

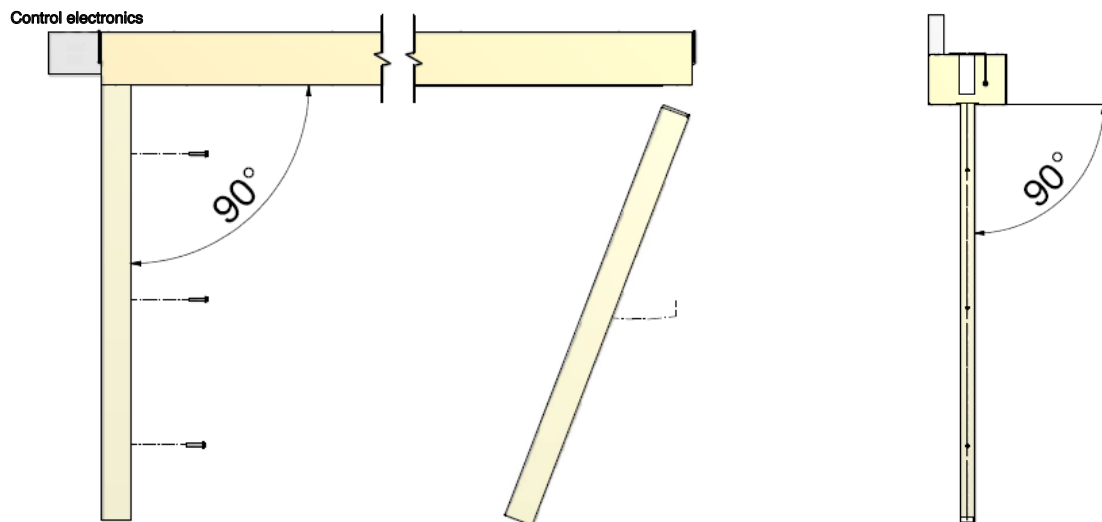
Installation

Figure 67: set side guides



- Align the side guides. The side guides must be lined up flush and at right angle with the edge of the head box and likewise flush and at right angle with the outer ends of the head box.

Figure 68: align side guides



- Mark the installation holes.
- Make the installation holes.
- Fix the side guides.



ATTENTION

After the installation of the side guides please check that these are aligned absolutely vertically and right angle to the head box. The plates of the restraint system on the curtain can otherwise come off.

Installation

6.9 installing bottom bar

- If necessary, adjust the bottom bar again.
- Fix the bottom bar by using the provided rivets at the existings bore holes. (The fabric has to be bored at this point.)

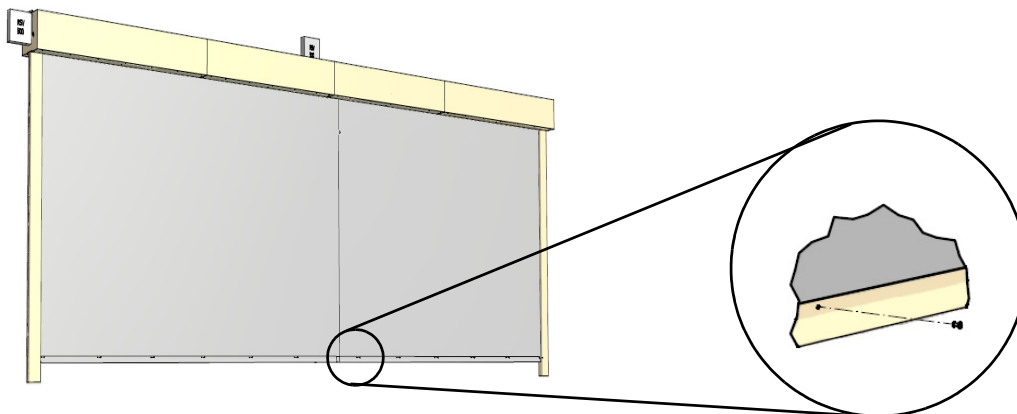


INFORMATION

Before fixing the rivets please proof if the bottom bar closes shortly with the cover plate. Smaller variations can be compensated by corresponding aligning of the bottom bar, before riveting.

- Fix the bottom bar with the therefore provided blind rivets (contained in the delivery contents).

Figure 69: installing bottom bar



Initial operation

7. Initial operation

- Do the initial operation (see User manuals for control units).

7.1 Attach installation retainer



ATTENTION

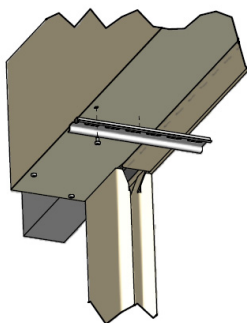
Until the final putting into operation the curtain has to be secured by the installation retainer. Because the curtain unwinds automatically when power line is switched off, it could be damaged.

- Attach the enclosed installation retainer as shown.

Figure 70: installation retainer



Figure 71: installation retainer (schema)



ATTENTION

The installation retainer must be removed before the final putting into operation of the system.

8. Care and maintenance



ATTENTION

In the long run the protective effect of the fire curtain is only secured if it is kept correct state (e.g. no mechanical damage, no dirt, maintenance)

The smoke curtain and if required the hold-on device must be kept workable all the time. It must be checked at least once a month in personal responsibility of the owner or his trained staff. The results must be noticed in a test book .

The test book must be stored by the owner and has to be shown when required by the building control authority.

8.1 Functional check

The functioning of the system must be checked regularly by the operator. In case of a possible defect the manufacturing company is to be notified immediately. Damaged parts are to be replaced immediately.

The functioning of the smoke curtain should be checked monthly. For this purpose the following steps are necessary:

- Make sure that the unwind area is always free from obstructions.
- Let the curtain unwind via manual trigger button or service button.
- Carry out a visual inspection of the attachments and material.
- Let the curtain wind up again (via reset button of the manual trigger button or service button).
- Check if the curtain winds up properly and remains in this position.

Care and maintenance

8.2 Maintenance



DANGER

Fire protection equipments serve to protect human lives and must therefore be serviced regularly – at least once a year – by a specialist company authorized by the manufacturer.

The maintenance is done according to a maintenance check list specified by the manufacturer (see 8.6 "Maintenance check list" on Page 41).

The annual maintenance for defect free roll-down and working of the fire curtain in combination with the hold-on device must be done by a known special company. All the results has to be noticed in the test book as well.

The test book must be stored by the owner and has to be shown when required by the building control authority.

8.3 Clean curtain material



ATTENTION

The curtain material is washable with mild commercial disinfectant or warm water. The curtain material must not be soaked or washed by machine, since otherwise the backing fabric will be damaged and glass filaments can come off.

8.4 Repair and exchange

The electrical control panel may be repaired only by the manufacturer. In case of a failure the complete control panel is to be exchanged.

8.5 Warranty conditions

Concerning the warranty please refer to: "General Conditions for the supply of Products and Services of the Electrical and Electronics industry" (Green Terms of Delivery – GL)".

This is available to you on our web site

www.simon-protec.com. We shall be glad to send you a copy on request.

Care and maintenance

8.6 Maintenance check list

Building project _____ System description _____ Kind of mounting (e. g. ceiling / wall) _____ Serial number / year of manufacture _____ Battery year of manufacture ⁽¹⁾ _____		Year of maintenance _____ Date _____ Mounting staff _____ Name / Signature _____	
(1) The backup battery must be changed every four years!			

No.	Check points	Test o.k.	Notes
1.0	Optical inspection		
1.1	Check the smoke curtain for damaging, contamination, oxidation	<input type="checkbox"/> yes <input type="checkbox"/> no	
2.0	Electrical inspection		
2.1	Check, if the electrical supply lines are connected properly and fixed well at the actuator	<input type="checkbox"/> yes <input type="checkbox"/> no	
2.2	Check, if the wiring to the actuators has been laid according to the valid VDE-commands and to the manufacturers' instructions (wire cross section, etc.).	<input type="checkbox"/> yes <input type="checkbox"/> no	
3.0	Functional inspection		
3.1	Attention! Check the operating voltage (according to manufacturers' instructions).	<input type="checkbox"/> yes <input type="checkbox"/> no	
3.2	Let the smoke curtain move in its alarm position and check if the curtain descends completely. Ensure that the roll-off area is free of obstacles.	<input type="checkbox"/> yes <input type="checkbox"/> no	
3.3	Reset the curtain. Ensure that the curtain moves duly in its end position.	<input type="checkbox"/> yes <input type="checkbox"/> no	
4.0	Inspection of the mechanical parts		
4.1	Check the fastening of the head box and of the side guides (optional)	<input type="checkbox"/> yes <input type="checkbox"/> no	
4.2	Check the bearing of the roll shaft.	<input type="checkbox"/> yes <input type="checkbox"/> no	

Notes
